

CLAIMS

1. A fabric (2; 20) formed from a plurality of first fibres or filaments (4), and a plurality of second fibres or filaments (6);
5 the first fibres or filaments being non-conductive and comprising an electro-optically active material; and
the second fibres or filaments being conductive;
whereby a voltage difference between two second fibres causes a colour change in a first fibre positioned therebetween.
- 10 2. A fabric (2; 20) according to Claim 1 wherein the first fibres or filaments (4) are interlaced with the second fibres or filaments (6).
3. A fabric (2; 20) according to Claim 1 or Claim 2 wherein a first
15 plurality (14) of the first fibres or filaments extends in a first direction and a first plurality (8) of the second fibres or filaments extends in a second direction.
4. A fabric (2; 20) according to Claim 3 wherein the second
20 direction is substantially different to the first direction.
5. A fabric (2; 20) according to any one of the preceding claims wherein a second plurality (10) of the second fibres or filaments extend in a third direction.
- 25 6. A fabric (2; 20) according to Claim 5, when dependent on Claim 3 or any claim dependent thereon wherein the third direction is substantially different to the first direction.
- 30 7. A fabric (2; 20) according to Claim 5, when dependent on claims 3 or any claim dependent thereon, or Claim 6 wherein the second direction is orthogonal to the third direction.

8. A fabric (2; 20) according to any one of the preceding claims wherein a second plurality (16) of the first fibres or filaments extends in a fourth direction.

5 9. A fabric (2; 20) according to Claim 8, when dependent on Claim 3 or any claim dependent thereon, wherein the first direction is orthogonal to the fourth direction.

10 10. A fabric (2; 20) according to any one of the preceding claims wherein one or more of the second fibres comprises an electro-optically active material.

15 11. A fabric (2; 20) according to any one of the preceding claims, wherein the plurality of first fibres is formed from a plurality of electro-optically active materials.

12 A fabric (2; 20) according to any one of the preceding claims, which fabric is woven, knitted or crocheted.

20 13. A fabric (2; 20) according to any one of the preceding claims wherein the fabric is woven, and the first fibres or filaments are interwoven with the second fibres or filaments.

25 14. A garment formed from a fabric (2; 20) according to any one of the preceding claims.

30 15. A method of forming a fabric (2; 20) comprising interlacing a plurality of first fibres or filaments (4) with a plurality of second fibres or filaments (8), the first fibres being non-conductive and comprising an electro-optic material, and the second fibres being conductive.

16. A method according to Claim 15 wherein the step of interlacing the first fibres or filaments (4) with the second fibres or filament (8) comprises weaving the first and second fibres or filaments together.

5 17. A method according to Claim 14 or Claim 15 further comprising applying a voltage difference between overlapping second fibres or filaments (8).